MIGUFIRE FRVL

TESTED FIRESTOP SYSTEMS (EI 120 / F120) FOR MOVEMENT JOINTS WITH VERY HIGH MOVEMENT IN SOLID CONSTRUCTION

- **INTUMESCENT JOINT SEALING ELEMENT**
  Classified fire resistance **EI 120** for the fire-resistant sealing of expansion and movement joints in walls and floors.
- **FOR JOINTS WITH HIGH MOVEMENT**
  Suitable for joint widths of **80 - 150 mm** with an additional **20 mm lateral movement capability.**
- **INTUMESCENT FIRE BARRIER**
  Flaton VPG 12 expands in the event of fire and enhances the thermal insulation performance of the sealing element.
- **FOR SOLID CONSTRUCTION**
  For use in fire-resisting building elements with a minimum thickness of **150 mm.**

MIGUFIRE FRVL is a firestop joint sealing system consisting of a multi-layer sealing element and a specially developed adhesive system. The sealing element comprises mineral foam boards with integrated intumescent fire protection layers and is encapsulated in aluminium foil. The system is designed for the fire-resistant sealing of expansion and movement joints subject to **very high structural movement**. Such movements may result from temperature fluctuations, building settlement, seismic activity or structural design requirements. The purpose of the system is to maintain or restore the fire resistance of compartment walls and floors, including the joint area. The firestop joint sealing system is suitable for nominal joint widths from 80 to 150 mm while accommodating additional movement within the joint.

Information on prices and packaging units is available upon request.

MIGUFIRE FRVL RANGE

System	Nominal Joint Width [mm]	Maximum Expansion [%]	Expanded Joint Width [mm]	Element Dimensions (L × W × Depth) [mm]	Minimum Wall/Floor Thickness [mm]	Classification
MIGUFIRE FRVL 80	80	50	120	1000 x 80 x 140	150	EI 120-V-M50-F-W 80
MIGUFIRE FRVL 90	90	50	135	1000 x 90 x 140	150	EI 120-V-M50-F-W 90
MIGUFIRE FRVL 100	100	50	150	1000 x 100 x 190	200	EI 120-V-M50-F-W 100
MIGUFIRE FRVL 110	110	50	165	1000 x 110 x 190	200	EI 120-V-M50-F-W 110
MIGUFIRE FRVL 120	120	50	180	1000 x 120 x 190	200	EI 120-V-M50-F-W 120
MIGUFIRE FRVL 130	130	50	195	1000 x 130 x 190	200	EI 120-V-M50-F-W 130
MIGUFIRE FRVL 140	140	50	210	1000 x 140 x 190	200	EI 120-V-M50-F-W 140
MIGUFIRE FRVL 150	150	50	225	1000 x 150 x 190	200	EI 120-V-M50-F-W 150

(V = Vertical joint in wall construction, H = Horizontal joint in floor construction)

FIRE RESISTANCE CLASSIFICATIONS

Fire-resistant systems approved for installation in solid concrete or masonry walls and solid concrete floors (see Installation Configuration A and Installation Configuration B).

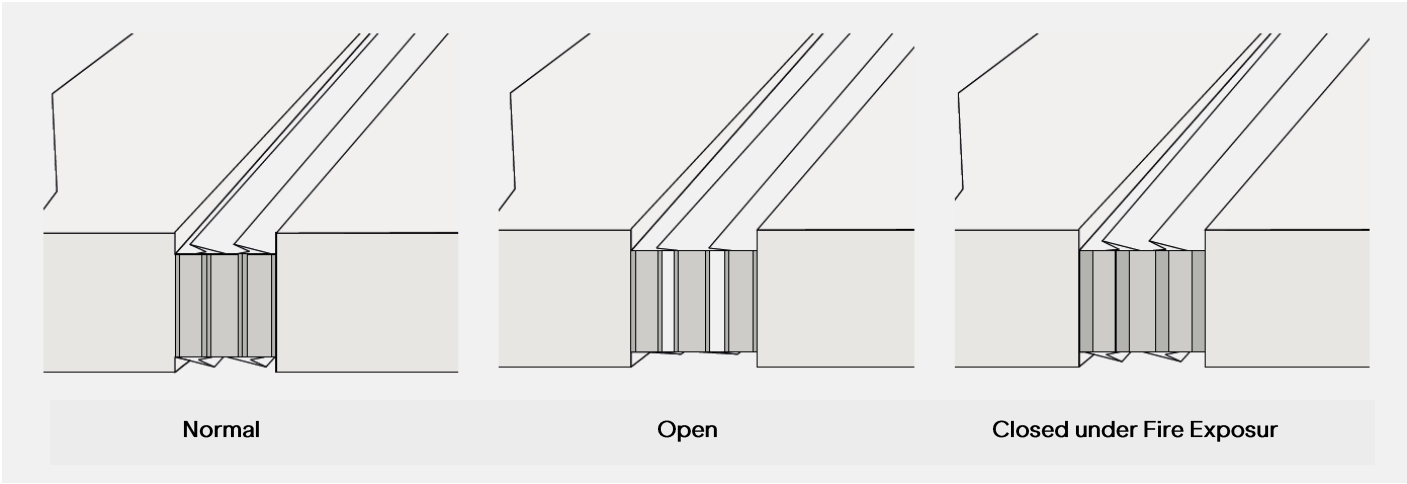
The German fire resistance classifications F90 and F120 are equivalent to the European fire resistance classifications EI90 and EI120.

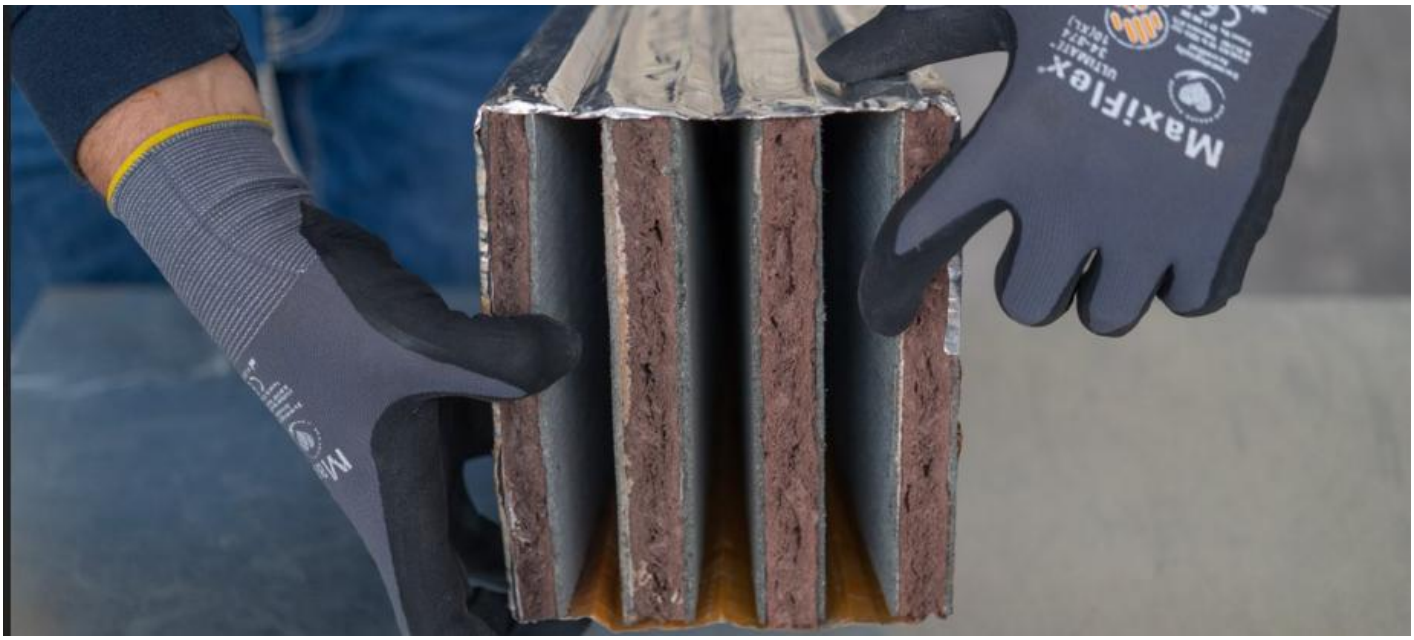
OPERATING PRINCIPLE

The joint sealing element is encapsulated in aluminium foil featuring expansion folds along its narrow sides. This ensures that the joint remains completely sealed even when subjected to joint movement.

In the event of fire, the intumescent material Flaton expands and enhances the insulating performance of the sealing element.

The firestop joint sealing system is bonded to both sides of the joint. When the joint opens due to movement, the sealing element expands accordingly. In the event of fire, the resulting opening is sealed by the expanding Flaton intumescent layer, thereby restoring the fire-resistant seal.

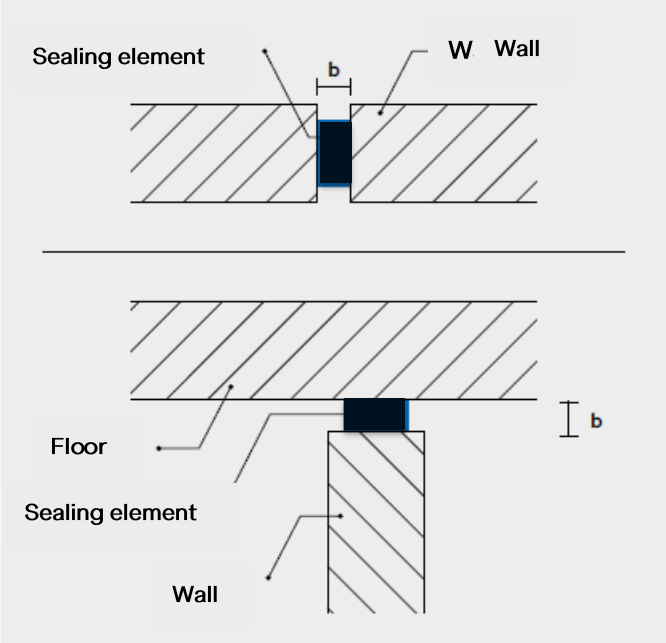




INSTALLATION CONFIGURATIONS

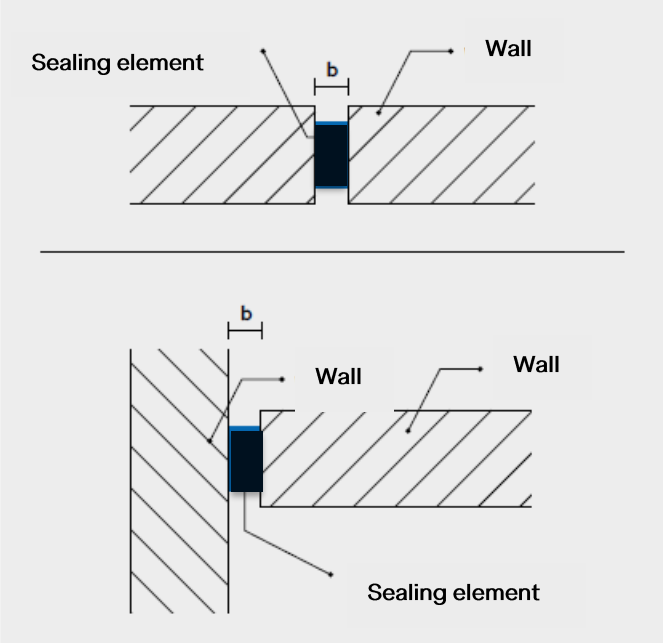
Configuration A:

Horizontal joint in or between floors, or between floors and walls



Configuration B:

Vertical joint in or between walls.



MATERIAL PROPERTIES

Excerpt from the European Technical Assessment (ETA)

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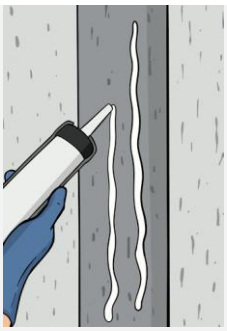
- Classified as **Reaction to Fire Class C-s1, d0** according to **EN 13501-1**.
- The firestop joint sealing system is **not intended to transfer structural loads**.
- The firestop joint sealing system may be used to seal linear joints in conjunction with the following fire-resisting building elements:
    - Solid concrete, reinforced concrete or masonry walls with a minimum density of **2,400 kg/m³ ±20%**
    - Solid concrete or reinforced concrete floors with a minimum density of **2,400 kg/m³ ±20%**
- The supporting construction shall achieve the required fire resistance classification in accordance with **EN 13501-2**.
- The minimum thickness of the supporting construction shall be **150 mm**.
- The provisions of **European Technical Assessment ETA-13/0270** shall be observed.
- The complete **ETA-13/0270** is available from MIGUA upon request.

INSTALLATION INSTRUCTIONS

Please read carefully before installation.

Preparation

Remove any protruding formwork fins, concrete or mortar splashes, foam residues, construction debris and any other contaminants from the joint.



Apply Adhesive (1)

Using a sealant gun, apply a total of **four continuous beads** of adhesive: **two beads to each side of the joint**.

Apply Adhesive (2)

Carefully apply **thin, continuous beads** of adhesive centrally to the end face of the sealing element, onto the **reddish-brown foam material**.

Do not allow the adhesive to come into contact with the anthracite-coloured intumescent layer.

Installation

If necessary, slightly compress the firestop joint block and insert it into the joint from the front. During installation, the adhesive is distributed over the joint faces. Use insertion plates where required.

Installation of Additional Elements

Install the remaining blocks using the same method. Position adjacent blocks tightly **butt-jointed**. Use insertion plates where required.

A suitable adhesive for this product is available from MIGUA.

IMPORTANT: If an additional sealant or joint cover system is to be installed, the joint edges shall be prepared in accordance with the sealant manufacturer's installation instructions. The primer applied for the sealant must **not** come into contact with the adhesive. The folds of the aluminium foil must **not** be bonded.